TOWN OF ATHOL—WATER DIVISION PWS #1015000

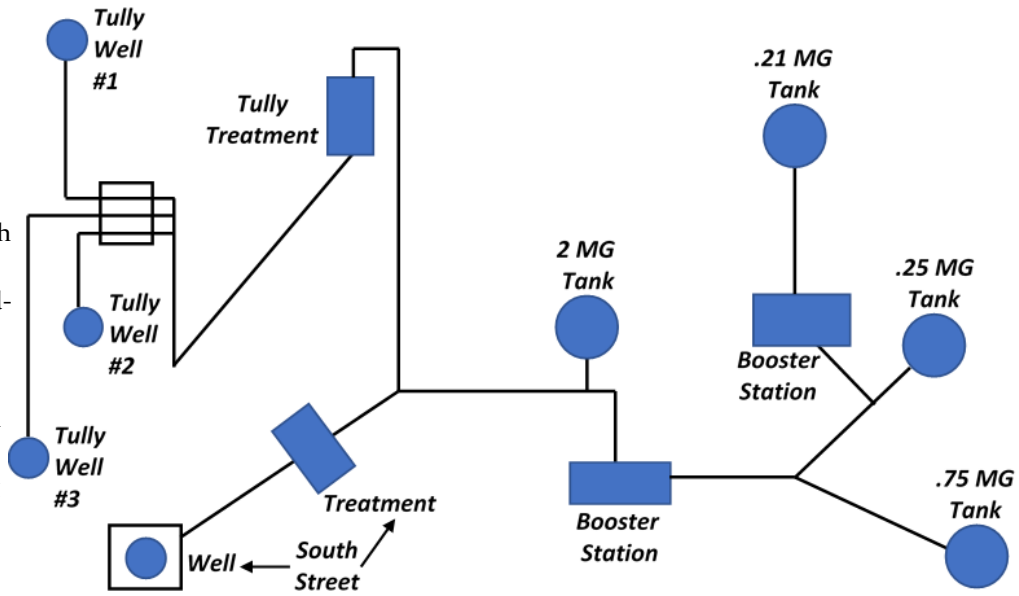
Waterwise Newsletter

Issue Date April 1, 2021

SOURCE TO TAP: *Where does my drinking water come from?*

The Town of Athol has four groundwater sources all located in the downtown area. Water is pumped from three of these sources to the Public Works facility for treatment before being distributed through the 58 miles of water distribution lines to the taps in your homes. The fourth ground-water source has a treatment facility of its own located off of Jones Street.

All of these sources pump from downtown to the uptown area where two booster stations are provided to assist in the filling of storage tanks and supplying the distribution system with an adequate supply of water.



Q: "What are PFAS?

A: Perfluoroalkyl and Polyfluoroalkyl substances (PFAS) are the latest family of manmade chemicals now being regulated per the Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) Drinking Water Standard. PFAS have been around since the 1950s and used in industry and consumer products worldwide in items such as non-stick coatings and firefighting foams. Manufacturing of items with PFAS was discontinued in the U.S. about 30 years ago, but still may be used in imported products. PFAS are resilient and don't degrade easily in soil or water resulting in their presence in the environment where they can migrate to food and drinking water supplies.

Q: "Do PFAS exist in Athol's water?

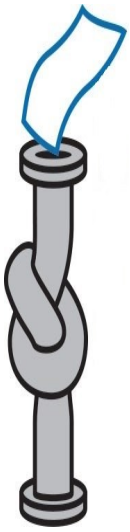
A: Presently, the Athol Water Division has no evidence supporting the presence of PFAS in its water supply. Per MassDEP, we will begin quarterly sampling in April 2021 of six specified chemicals (PFAS6) to ensure Athol's water meets state standards. Consumer notification of PFAS6 detection will be identified annually in all future Water Quality Reports.

For more information on PFAS, visit www.epa.gov/pfas or visit www.mass.gov and perform a search on 'PFAS'.

The Super Says...

"Only pass the 'P's please"

WIPES CLOG PIPES



Time for a little toilet talk. To prevent costly sewage backups in the municipal sewage system or in your homes, you should only flush these three 'P's:

Convenience comes with a cost. Disposable or so-called "flushable" wipes are quickly becoming the leading cause of clogged sewage collection systems and residential sewer lines. Don't be fooled by products labeled "flushable" as most don't break down or aren't biodegradable resulting in backups in sewer mains, wastewater equipment, and homeowner service lines. The results are costly repairs and clean up for municipalities and homeowners alike.

Rising numbers of backups, spills, repairs, clean up, their costs, and potential health risks, gave way to recent legislation (Bill HD 1625) effective January 1, 2022 requiring manufacturers meet revised performance standards in order to market products as true "flushable" wipes which are nonwoven disposable products.

Source Water Assessment Plan

In 2003, a source water assessment plan was updated and prepared for the town to protect our water supplies. The program is to prevent any further contamination of our sources. Restrictions are in place to prevent hazardous materials and facilities from being allowed within the established protection zones. Our local agencies work very closely with the Public Works Department to prevent any type of contamination. **To receive a copy of the source water assessment plan, please contact the Department of Public Works at 584 Main Street, Room 24, Athol, MA 01331.**

"The sources of drinking water (both tap water and bottled water) include rivers lakes, streams, ponds, reservoirs, springs & wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity."

All drinking water, including bottled water may reasonably be expected to contain at least small amounts of some contaminants. The presence of some contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the environmental agency's Safe Drinking Water Hotline at 1-800-426-4791.

Contaminants that may be present in Source Water…

- Microbial Contaminants, such as viruses and bacteria, that may come from sewerage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Pesticides and Herbicides that may come from a variety of sources such as agriculture, urban storm-water runoff, and residential uses.
- Inorganic Contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Organic Chemical Contaminants, including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive Contaminants that can be naturally-occurring or be the result of oil and gas production and mining activities.

Water you know?

- Water is the only natural substance found in all 3 physical states: liquid, solid, and gas.
- Ten percent of homes have leaks that waste 90 gallons or more per day.
- Refilling a half-liter water bottle 1,740 times with tap water is the equivalent cost of a .99¢ water bottle at a convenience

MAKING ¢ENTS OF YOUR WATER

Ever wonder how much the water supplied to your taps really cost? At just over half a cent per gallon, residents enjoy safe, great tasting, affordable water delivered from source to taps by Athol's Water Division.

.006 cents per gallon

Athol Water Math Facts

Athol charges $4.46 per 100 cubic feet (ft^3) of water. One ft^3 equals 7.48 gallons, therefore, 100 ft^3 equals 748 gallons for just $4.46. That's only six-tenths (6/10) of a penny per gallon!

Retail Water Cost Comparison

Let's take a look at a few retailers and their price per gallon of water.

- $1.30/gallon—Primo purified water at Walmart
- $0.58/gallon—Walmart Great Value purified drinking water
- $0.99/gallon—Hannaford Nature's Promise Spring Water
- $1.67/gallon—Poland Spring Natural Spring Water delivery

Benefits Beyond the Buck

Take it from the tap! It saves you money, reduces waste and pollution, and helps to preserve our precious environment.

Town of Athol Water Division

2020Water Quality Report

Public Water Supply Identification Number 1015000

The Town of Athol Water Division is pleased to share that our water system had another successful year of supplying you with the highest quality of water. This was made possible with the team of professional staff working for you here in the Town of Athol Department of Public Works. Our staff is dedicated in its efforts to work as a team to continue providing you with water of the highest quality. To better understand the water chemistry here in the Town of Athol, please review the information below and the report on the reverse side. You may contact Athol Water Division's Primary Water Treatment Operator, Bob Hughes, at 978-721-8448 with any questions.

Understanding this Report

In order to ensure that tap water is safe to drink, EPA and MassDEP prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and Massachusetts Department of Public Health regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

The Athol Water Division routinely monitors for contaminants in your drinking water according to federal and state laws. This report covers the period of January 1, 2020 to December 31, 2020. The water division wants you to understand all drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. It is important to remember that the presence of these contaminants does not necessarily pose a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

DEFINITIONS

Massachusetts Department of Environmental Protection (DEP) - the state agency responsible for setting and enforcing drinking water regulations

Maximum Contaminant Level (MCL) - the highest level of a contaminant allowable in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology

Maximum Contaminant Level Goal (MCLG) - the level of a contaminant in drinking water below which there is no known or expected risk to health

Secondary Maximum Contaminant Level (SMCL) - Established guidelines to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color, and odor. These contaminants are not considered to present a risk to human health at the SMCL.

Office of Research and Standards Guideline (ORSG) - concentration of a chemical in drinking water at or below which adverse health effects are unlikely to occur after chronic (lifetime) exposure

90th Percentile - out of every 10 samples, 9 were at or below an accepted level

Action Level (AL) - the concentration of a contaminant which, exceeded, triggers treatment or other requirements that a water system must follow

ppm - parts per million or milligrams per liter (mg/l); one part per million corresponds to 1 minute in 2 years or a single penny in $10,000.00

ppb - one part per billion (one penny in $10,000,000)

pCi/L - picocuries per liter; a measurement of radioactivity in water

ug/l - micrograms per liter; parts per billion

TT- Treatment Technique

Unregulated Contaminants - substances without MCLs for which the Environmental Protection Agency (EPA) requires monitoring but has not yet established drinking water standards.

LEAD AND COPPER

Understand the source water and water within the distribution system is lead free. However, older homes may have lead soldered joints or lead and copper pipes that may dissolve into the water. The Town of Athol treats their water to prevent this process from occurring.

If present, elevated levels of lead can cause serious health problems especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Town of Athol is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have it tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800-426-4791) or at http://www.epa.gov/safewater/lead

Town of Athol Water Division
2020 Water Quality Report
PWS #1015000

Below are substances that were detected in the town's drinking water during the past 5 years. None of these substances were detected above the allowable limit. Copies of the 2020 Water Quality Report will be available at the Town Clerk's Office, the Town of Athol website, http://www.athol-ma.gov, and at the Department of Public Works at 584 Main Street, Athol, MA. Please direct any questions you may have about this report to the Department of Public Works by calling 978-721-8448.

Contaminant[1] (unit of measurement)	Date(s) or Frequency Collected	MCL or MRDL	SMCL, ORSG, or RL[2]	Highest Amount Detected or Highest RAA[3]	Range Detected	Violation Y/N	Possible Sources
Regulated Inorganic Compounds (IOCs)							
Fluoride[4] (ppm)	Monthly 2020	4	2	0.898	0.551-0.898	N	Water additive that which promotes strong teeth
Nitrate[5] (ppm)	5/20/20	10		1.23	0.967-1.23	N	Runoff from fertilizer use; leaching from septic tanks
Nitrite (ppm)	5/20/20	1		<0.0100	<0.0100	N	Runoff from fertilizer use; leaching from septic tanks
Regulated Radioactive Contaminants							
Gross Alpha (pCi/L)	8/5/19	15		0.557	--	N	Erosion of natural deposits
Radium 226 & 228 (pCi/L)	8/16/19	5		0.12	--	N	Erosion of natural deposits
Regulated Disinfection/Disinfection By-Products (DBPs)							
Chlorine (ppm)	Monthly	4		1.27	0.03-1.27	N	Water additive to control bacteria
Haloacetic Acids [HAA5s] (ppb)	2/18/20 - 11/18/20	60		9.81	1.96-9.81	N	By-product of drinking water disinfection
Total Trihalomethanes [TTHMs] (ppb)	2/19/19 - 11/19/19	80		28.5	18.1-28.5	N	By-product of drinking water chlorination
Regulated Bacteria Testing - Revised Total Coliform Rule (RTCR)							
Total Coliform	Monthly	TT		ND	--	N	Naturally present in the environment
E.coli	Monthly	†		ND	--	N	Human and animal fecal waste
Unregulated Inorganic Compounds (IOCs) / Secondary Contaminants							
Sodium (ppm)	5/20/20		20 ORSG	93.4	51.9-93.4	N	Winter deicing operations
Iron (ppb)	5/20/20		300 SMCL	808	<50-808	N	Natural and industrial sources; aging water system
Manganese (ppb)	5/20/20		50	44.9	6.7-44.9	N	Natural deposits and industrial uses
Barium (ppm)	1/7/20	2		0.0267	0.0144-0.0267	N	Discharge of drilling wastes, discharge from metal refineries, erosion of natural deposits
Perchlorate (ppb)	8/19/20	2	1.0 RL	0.25J[6]	0.20J-0.25J	N	Rocket propellants, fireworks, munitions, flares, blasting agents
Unregulated Volatile Organic Compounds (VOCs) / Secondary Contaminants							
Chloroform (ppb)	5/7/19		70 ORSG	1.41	--	N	By-product of drinking water chlorination; TTHM
Bromodichloromethane (ppb)	5/7/19		*	1.76	--	N	By-product of drinking water chlorination; TTHM
Chlorodibromomethane (ppb)	5/7/19		*	1.44	--	N	By-product of drinking water chlorination; TTHM
Methyl Tertiary Butyl Ether (ppb)	2/3/15		70 ORSG	0.97	--	N/A	Fuel additive; leaks/spills from gasoline storage tanks
Lead and Copper	**Date(s) Collected**	**Action Level (AL)**	**90th Percentile**	**90th %> AL Y/N**	**# of Sites Sampled**	**# of Sites Above AL**	**% of Sites Above AL**
Lead (ppb)	8/18/20-8/24/20	15	3.3	N	30	None	Zero
Copper (ppm)	8/18/20-8/24/20	1.3	0.307	N	30	None	Zero

[1]The Town of Athol Water Division was granted a sampling waiver for Inorganic and Synthetic Organic Compounds on July 11, 2017.

[2]Reporting Limit (RL) is the lowest concentration of the substance can be reported reliably under normal laboratory conditions.

[3]Running Annual Average (RAA) = highest running annual average of four consecutive quarters

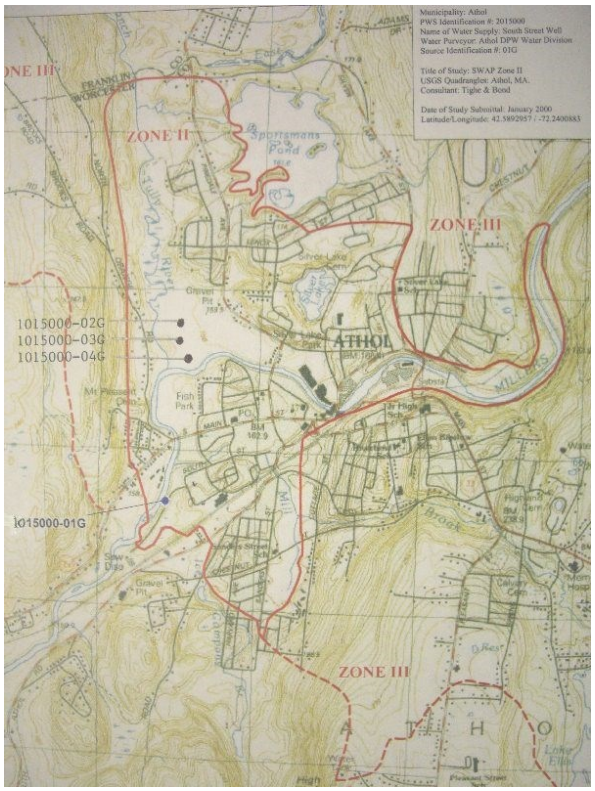
[4]Fluoride: A naturally occurring element in many water supplies in trace amounts. In our system the fluoride level is adjusted to an optimal level averaging one part per million (ppm) to improve oral health in children. At this level, it is safe, odorless, colorless, and tasteless. Fluoride has a secondary contaminant level (SMCL) of 2 ppm.

[5]Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If caring for an infant, you should ask for advice from your health care provider.

[6]A 'J' flag means that the result is lower than the Reporting Limit (RL) and higher the Method Detection Limit (MDL).

[†]Routine and repeat samples are total coliform-positive and either is E.coli positive or system fails to take repeat samples following E.coli-positive routine sample or system fails to analyze total coliform-positive repeat sample for E.coli.

***There is no Office of Research and Standards Guideline (ORSG) health benchmark for this contaminant.**



Zone II is the Department of Environmental Protection approved primary recharge area for our aquifer. It is very important to protect the land within the Zone II to avoid contamination to our water supply from improper disposal of hazardous materials from residential, commercial, and industrial facilities.

CONSTRUCTION ON TAP

- Walnut Street reconstruction project
- Tully Well #2 replacement
- Five Points reconstruction project

2020 End of Construction

- Church Street water main replacement which included new hydrants, a new 8" sewer main, and improved drainage
- Pequoig Avenue sewer lining and installation of new manholes

PROTECTION OF THE WATER SYSTEM

The Public Works Department and Local Agencies can only provide a certain amount of protection without the help of you the resident and consumer. We ask that you assist us in protecting our valuable water resources by reporting any illegal dumping of gasoline, oil or other hazardous materials on the ground by calling the Public Works office at 978-721-8448. Reports of suspicious activity around the Water Department Buildings or Water Storage Tanks should be directed to the State Police Department at 800-525-5555.

CROSS CONNECTION PROTECTION

A cross connection is any actual or potential connection between the public water supply and a source of contamination or pollution. Contamination can occur from the following types of cross connections:

- A garden hose connected to a fertilizer/pesticide sprayer attachment
- A garden hose connected to an outdoor spigot with the other end submerged in a pool
- A water feed to a boiler
- A water line feed to a chemical tank
- A hose connected to a sink faucet that could result in back-siphonage under a low pressure situation

Protect Your Home

The Athol Water Division recommends that residents purchase low cost Hose Bibb Vacuum Breakers and install them on all threaded faucets both in and outside of your home. These devices will prevent hazardous water from being siphoned back into your home.

Commercial, Industrial, Municipal & Institutional Buildings

Our staff surveys buildings for hazardous cross connections. If hazards are found, owners must eliminate or install proper devices for protection against back-siphonage. We visit facilities regularly twice a year to test backflow devices to ensure they are functioning properly. If your facility undergoes any changes since an initial survey where plumbing has been altered in any way, you need to notify the Athol DPW to determine if a new survey is necessary.

VIEW FROM THE SUPER'S DESK

It's been a year of many changes in the DPW especially with your water supply personnel. The leadership changed with the retirement of Doug Walsh. His successor, Richard Kilhart, brings 35 years of experience to lead as Athol's DPW Superintendent. Paul Raskevitz joined as the Assistant Superintendent lending an additional 21 years of experience to the leadership.

Long standing members of the Water Division, Dave Carr and Bob Hughes, have been promoted and continue their tradition of excellence. Their 29 and 24 years, respectively, an example to all. Working with 18 years of experience, Dave Craven, along with our veterans mentor our rising stars Matt Bardsley (5 years) and Rob Bergquist (1 year). Our Environmental Compliance Coordinator, Jennifer Shaw (8 years) and Administrative Clerk, Diana Cooley (24 years) complete an amazing staff offering the Athol community over **150** years of DPW/Public Water Supply experience.

I must say, I'd put this team of staff up against any staff across the State of Massachusetts.

Simply put, "They are at your service, and they are simply the BEST."

Richard Kilhart

Serving to provide quality drinking water are Richard Kilhart, Jennifer Shaw, Dave Carr, Dave Craven, Rob Bergquist, Bob Hughes, Matt Bardsley, and Paul Raskevitz.

If you have questions about this newsletter or would like to know more about your water utility, please contact the Athol Department of Public Works office located at 584 Main St., Room 24, Athol, MA 01331 or by calling 978-721-8448. A member of our professional staff will be happy to answer any questions you may have.

Office Hours*

Monday, Wednesday, Thursday	8AM—5PM
Tuesday	8AM—8PM
Friday	Closed

Public access by appointment only due to COVID-19.

Copies of this newsletter and included 2020 Water Quality Report will be available at the Town Clerk's Office, the Town of Athol website http://www.athol-ma.gov and Department of Public Works at 584 Main Street, Athol, MA.